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920584-906022

**IN THE UNITED STATES PATENT AND  
TRADEMARK OFFICE**

IN RE APPLICATION OF: : Clive Hayball  
SERIAL NO: : 09/888,730  
FILED: : June 25, 2001  
FOR: : Apparatus and Method for Managing  
Internet Resource Requests  
EXAMINER: : Bilgrami, Asghar  
GROUP ART UNIT: : 2143  
CUSTOMER NO: : 23644

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Signature Minnie Wilson

Minnie Wilson

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**APPEAL BRIEF**

Honorable Director of Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

This is an appeal from the final rejection of claims 1, 2, 5, 7, 8, 10, 12, 13 and 19-36  
in the final Rejection of November 2, 2005 as confirmed in the Advisory Action mailed  
January 26, 2006. No claim stands allowed.

The fee of \$500 pursuant to 37 C.F.R section 41.20 is submitted herewith.

**(i) Real Party In Interest**

The real party in interest in this application is Nortel Networks Limited, Quebec,  
Canada.

**(ii) Related Appeals and Interferences**

No other appeals or interferences are known to Appellants, Appellants' legal  
representative, or assignee that will directly affect or be directly affected by or have a  
bearing on the Board's decision in the pending appeal.

### **(iii) Status of the claims**

Claims 1, 2, 5, 7, 8, 10, 12, 13 and 19-36 are pending in this application and have been finally rejected. Claims 3, 4, 6, 9, 11 and 14-18 have been cancelled. The independent claims are in the form as presented in the response of July 28, 2005 to the Office Action mailed May 6, 2005, as re-stated in the response filed January 26, 2006.

Claims 1, 2, 5, 7, 8, 10, 12, 13 and 19-36 are the claims appealed, and are set forth in the Claims Appendix.

### **(iv) Status of the amendments**

An amendment to Claim 28 is filed concurrently herewith. This amendment is to correct an incorrect dependency. No further amendments to the remaining claims have been filed subsequent to the final rejection, so that the claims are in the form as last examined and identified in the Advisory Action mailed January 26, 2006.

### **(v) Summary of the claimed subject matter**

The invention relates to a method and an architecture in which:

- (i) there is a server 1 (herein referred to as a Generic Local Lookup Server (GLLS)) at the edge of a network and **directly** connected to a client (2 in Figure 2).
- (ii) The GLLS receives resource requests from a client and passes them to an appropriate second server 3 (herein referred to as a Generic Domain Lookup Server (GDLS)). The GDLS is remote from the network edge and the client, unlike the GLLS.
- (iii) The GDLS provides a service look-up according to pre-defined mappings and returns a list of entries, for example the IP addresses or names of other servers to the GLLS (see Page 7 paragraph 1).
- (iv) The GLLS may then chose to re-order the entries according to server selection criteria and choose the best server based on the criteria which may be, for example, speed or client location (Page 9 paragraph 3)
- (v) The GLLS will then return an ordered list of best servers based on the whole set of servers, both local and remote (Page 9 paragraph 3)

**(vi) Grounds of Rejection to be Review on Appeal**

There is one ground of rejection to be reviewed on Appeal:

1. The rejection of claims 1, 2, 5, 7, 8, 10, 12, 13 and 19-36 under 35 U.S.C. §102(e) as being anticipated by Jindal et al. U.S. Patent No. 6,092,178.

**(vii) Argument**

The Examiner maintains that Jindal discloses the features of the Generic Local Lookup Service (GLLS) and the Generic Domain Lookup System (GDLS) claimed in Claim 1. That is incorrect.

The present claim specifies that the GLLS and GDLS are present at a location at the network edge and remote from the network edge respectively. It is therefore clear that the GLLS and GDLS are present on separate pieces of hardware since an entity cannot reside both at a network edge and at a location remote from the network edge.

In the present invention a client sends a resource request to a GLLS which then queries the GDLS. The GDLS returns a selection from a global list of potential service providers to the GLLS. The GLLS can then select the most appropriate service provider according to server selection criteria such as the client's requirements and local network conditions.

In contrast in Jindal a DNS server is described which "receives requests for information on or connection to various network entities" (Column 5 Lines 21 to 24). "Based upon the identifier of the desired entity, the DNS server searches a database of resource records" (Column 5 Lines 26 to 28). The DNS server then either acts to "load or mount an alternate name space ... for handling a client request" (Column 5 Lines 40 to 42). The DNS server may also "determine or retrieve an identity of a network entity to which the client request should be routed" (Column 5 Lines 43 to 44).

It is therefore clear that Jindal only discloses a client querying a single DNS server which identifies a suitable network entity according to a database of resource records stored on it.

Applicants therefore submit that one skilled in the art on reading Jindal would only learn to build a database identifying possible servers which is then searched when the server on which the database is stored is queried by a client. Nowhere does Jindal disclose or teach that the server on receiving the request would query a second server as claimed in the present application.

Furthermore, Jindal even states that “requiring the DNS server to query or access another server in order to resolve the request is inefficient and delays satisfaction of the request” (Column 2 Lines 11 to 13). Jindal thereby teaches away from the present invention.

Applicants therefore submit that Jindal does not disclose or even suggest the steps of “receiving a resource request at the GLLS from a client..., the GLLS forwarding the resource request to the GDLS” i.e. from a first server to a second server, “the GDLS transmitting a response containing a list of resource providers to the GLLS... the GLLS selecting the best resource provider in the list...and... [facilitating] providing the requested resource to the client by the best resource provider” as recited in Claim 1.

Applicants therefore submit that Jindal does not anticipate Claim 1. Claims 27 and 30 are apparatus and computer readable storage medium claims that recite the equivalent features to Claim 1 and hence, Applicants submit that Claims 27 and 30 are also not anticipated by Jindal.

Claims 25 and 26 are for “a DNS record for conveying a response to a resource request message from a GDLS... to a GLLS” and “a DNS record for conveying a resource request message from a GLLS... to a GDLS”.

As discussed above Jindal states that “requiring the DNS server to query or access another server in order to resolve the request is inefficient and delays satisfaction of the request” (Column 2 Lines 11 to 13). Applicants therefore submit that Jindal does not teach or even suggest a record that is used for a first server to query a second server as is claimed in Claims 25 and 26. Rather, Jindal teaches that to have such a

message would be "inefficient and delay satisfaction of the request" (Column 2 Lines 11 to 13).

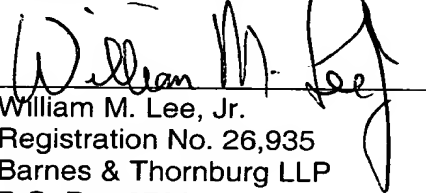
Applicants therefore submit that Claims 25 and 26 are not anticipated by Jindal.

Applicants further submit that Jindal does not anticipate Claims 2, 5, 7, 8, 10, 12, 13, 19 to 24 and 28 to 36 at least by virtue of their claims dependencies.

In view of the above, reversal of the Examiner is submitted to be in order and is requested.

May 2, 2006

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Lee, Jr.", is written over a horizontal line.

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## Claims Appendix

1. A method of handling a resource request, by a Generic Local Lookup Service (GLLS) at a network edge and a Generic Domain Lookup System (GDLS) at a location remote from the network edge, comprising the steps of:
  - receiving a resource request at the GLLS from a client, the resource request identifying the requested resource;
  - the GLLS forwarding the resource request to the GDLS
  - the GDLS searching a database for a resource record associated with the requested resource the resource record including a series of executable instructions;
  - the GDLS analysing a set of resource providers and determining the resource providers compatible with the resource request;
  - the GDLS transmitting a response containing a list of resource providers to the GLLS, the list including server selection criteria associated with the resource providers;
  - the GLLS selecting the best resource provider in the list according to the server selection criteria; and
  - the GLLS executing the executable instructions to facilitate providing the requested resource to the client by the best resource provider.
2. A method according to Claim 1, wherein the resource request further comprises information relating to client location in the network and access speed.
3. (Cancelled)
4. (Cancelled)
5. A method according to Claim 2 wherein the information is added to the resource request after said resource request is received at the GLLS from the client.
6. (Cancelled)
7. A method according to claim 1, wherein the GLLS is a DNS server and the step of receiving a resource request comprises receiving a request concerning access to the resource provider.

8. A method according to Claim 1, further comprising the steps of the:  
the GLLS converting the resource request into a form operable by the GDLS;  
and  
transmitting the converted resource request to the GDLS.
9. (Cancelled)
10. A method according to Claim 1, wherein the requested resource is provided to the client by the best resource provider via the GLLS.
11. (Cancelled)
12. A method according to Claim 1, wherein the resource provider is an application.
13. (Previously presented) A method according to Claim 1, wherein the resource provider is a server operating an application.
14. (Cancelled)
15. (Cancelled)
16. (Cancelled)
17. (Cancelled).
18. (Cancelled)
19. A method according to Claim 1, wherein the resource request is a DNS record and the information in the resource request is contained within an additional DNS text field forming part of the DNS record.
20. A method according to Claim 1, wherein the response transmitted by the GDLS is a DNS record and the server selection criteria of the compatible resource providers are contained within an additional DNS text field forming part of the DNS record.

21. A method according to Claim 1[[4]], further comprising identifying a lookup means for accessing said resource provider.
22. A method according to claim 21 wherein the look up means comprises an address.
23. A method according to Claim 21 wherein the identifying comprises retrieving a second identity of the network entity.
24. A method according to claim 23 wherein the first identity comprises a name and the second identity comprises an address.
25. A DNS record for conveying a response to a resource request message from a GDLS, at a remote location to a network edge, to a GLLS at a network edge, comprising a user-defined text-field for specifying Content Selection Criteria for finding a preferred resource provider for providing a requested resource; the preferred resource provider being defined by the resource provider that is most compatible with the requested resource.
26. A DNS record for conveying a resource request from a GLLS, at a network edge, to a GDLS at a remote location from the network edge, comprising an user-defined text-field for specifying at least one bit of information about a client for finding resource provider compatible with the requested resource on the basis of the information.
27. A scalable architecture for handling a resource request from a client, the resource request comprising a first identity of a resource provider, the architecture comprising:
- a GLLS at a network edge for providing the requested resource to the client from a preferred resource provider in response to receiving the resource request from the client, said preferred resource provider being defined by as the resource provider that is most compatible with the resource request with respect to Content Selection Criteria contained in the resource request; and
  - a GDLS at a remote location from the network edge for returning a set of resource providers in response to receiving a converted resource request from the GLLS.



28. An architecture according to claim 27, wherein the resource request further comprises information on the client, and the preferred resource provider is defined as the resource provider that is most compatible with the client information; wherein the GLLS further comprises a comparator for comparing the returned set of resource providers with information on the client to produce an ordered list of resource providers with the preferred resource provider first.

29. An architecture according to claim 28, further comprising a content distribution point manager (CDPM) associated with the GDLS, the CDPM holding information on resource providers, said CDPM configured to provide information on all known resource providers able to supply the requested resource on receiving a query from the GLLS corresponding to the resource request received by the GLLS.

30. A computer readable storage medium storing instructions that, when executed on entities within a network, cause the entities to perform a method for handling a resource request, the method comprising the steps of;

- receiving a resource request at a GLLS at a network edge from a client, the resource request identifying the requested resource;

- the GLLS forwarding the resource request to a GDLS at a location remote from the network edge;

- the GDLS searching a database for a resource record associated with the requested resource the resource record including a series of executable instructions;

- the GDLS analysing a set of resource providers and determining the resource providers compatible with the resource request;

- the GDLS transmitting a response containing a list of resource providers to the GLLS, the list including server selection criteria associated with the resource providers;

- the GLLS selecting the best resource provider in the list according to the server selection criteria; and

- the GLLS executing the executable instructions to facilitate providing the requested resource to the client by the best resource provider.

31. A method according to Claim 2, wherein the server selection criteria includes information on one of the group comprising: a response time of said resource provider, a load on said resource provider, a distance to the resource provider from the client, and a throughput of the resource provider.

32. A method according to Claim 1, wherein the requested resource is available on the resource provider but is not available on the GLLS.
33. A communications network comprising the scaleable architecture as claimed in claim 27.
34. A method according to Claim 1 wherein the list of resource providers transmitted by the GDLS is in order of their compatibility with the resource request, the most compatible resource provider placed first.
35. A method according to Claim 1 wherein the GLLS includes a Content Distribution Point Manager (CDPM), the CDPM adapted to provide information about local resource providers within an ISP domain.
36. A method according to Claim 1 wherein the GDLS includes a Content Distribution Point Manager (CDPM), the CDPM adapted to provide information about resource providers throughout the network.

**Evidence Appendix and Related Proceedings Appendix**

There are no such appendices.